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ABSTRACT

Policies directed at improving the educational system are often based upon a rationalistic view of the processes of teaching and schooling. The courts and other branches of government are devoting more attention to regulating schooling. As the rights of students have been articulated through litigation and legislation, the duties of schools have become crystallized. The current legalistic conception of schooling contains no reference for assessing the nature and content of educational practice or how it affects the child. This rationalistic view is often at variance with the spontaneous and humanistic theories held by many teachers. While teachers must adjust to the rational theory held by the controlling forces of schools, they are inclined to adhere to their own views in actual classroom practice. Within this conceptual framework, a future study will be conducted to examine teachers' perceptions of their work, of education generally, and of the rationalistic model currently enforced by government and bureaucracies. (JD)

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A CONCEPTUAL FRAMEWORK FOR EXAMINING TEACHERS' VIEWS OF TEACHING AND EDUCATIONAL POLICIES

Linda Darling-Hammond, Arthur E. Wise

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Prepared For

The Ford Foundation

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION

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PREFACE

In recent years legislation and litigation have begun to regulate the behavior of the teacher in the classroom. Little is known about the actual effects upon teachers of federal and state educational policy. This paper, supported by the Ford Foundation, conceptualizes a framework for examining teachers' views of these policies, their views of the educational process and the relationships between the two sets of views. In the past there have been some good, but now somewhat dated, studies of how teachers view teaching. This research will up-date these findings and relate them to the new regulatory efforts. The results should be of interest to educational policymakers and practitioners.

SUMMARY

This note is part of a study supported by the Ford Foundation of teachers' conceptions of education and of their work. The note establishes a context for an empirical examination of the effects of educational policies upon teachers. This work will be incorporated into a later report which will describe the study's findings and conclusions. Through intensive interviews of 45 teachers, we hope to learn how teachers are coping with policies that are intended to alter their classroom behavior.

The courts and other branches of government have begun to regulate the process of education. Judges, legislators, and bureaucrats, in the process of confirming the educational rights of students, have become increasingly prescriptive in their approach to the schools. Some legislation and court decisions have even begun to define the quality of education that a school is to deliver.

Legislative and judicial policy for schools necessarily reinforces a legalistic conception of schooling, since the policies must be general, uniform, and enforceable. Some require the attainment of measurable educational objectives. These policies do not entertain the possibility that the specified outcomes may be unattainable or that the policies may have unintended consequences. They rely upon bureaucratic authority for their implementation.

These policies are "rationalistic": They seek to rationalize the actions of teachers by specifying curricular objectives, by prescribing instructional methods for attaining the objectives, and by evaluating

the extent to which the objectives are attained. The theory is that if teachers conform their behavior to this model, student learning will occur.

Yet other theories of education are possible. In the "spontaneous" theory, the teacher is the central figure. Acting spontaneously, he or she fosters the intellectual growth of the student. The individual student is the focal point for "humanistic" theory; the teacher creates an environment to facilitate the student's development. If policymakers and teachers adhere to different views of education, then educational policies may not have their intended effects.

To which theory of education do teachers subscribe? What determines the theory to which teachers subscribe? How do teachers cope with the dissonance if their own theory is different from their school systems? This note explores these and other general questions as we examine teachers' goals, aims, and implicit standards; teachers' views of their roles; how teachers plan and conduct instruction; and how teachers' attitudes toward a rationalistic model of instruction are shaped. We review the literature on teaching and teachers' conceptions, and propose some hypotheses to be tested in our analysis of the empirical data.

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I. INTRODUCTION

Schooling institutions have always been a part of human societies, but governing bodies have rarely paid them a great deal of attention. The functions of schools have typically been residual in nature, that is, they are charged with cultivating those behaviors or types of knowledge thought to be important but not assumed completely by families or other agencies of the society.[1] As societies have grown more complex, the range of behaviors and knowledge in the residual domain of schooling institutions has grown, and the process of deciding which types of knowledge to teach or which kinds of behaviors to cultivate has necessarily become more complicated and more open to competing demands from groups within the society interested in different outcomes. At the same time, individual options and mobility within the social order have increased, and expectations of schooling institutions have been heightened.

As the residual domain of schooling has become larger, the perceived importance of schooling to individual and societal attainment has also increased. This, coupled with the more egalitarian ethos of contemporary societies, has resulted in attempts to formalize societal expectations of and demands upon schools. The perception of education as "the great equalizer . . . the balance-wheel of the social machinery"[2] has encouraged vigorous efforts to hold schools accountable for both the equality and the quality of the opportunities they afford. For example, the enforcement of equal educational opportunities for children of different races was justified in the seminal *Brown* decision by the importance of formal education to the individual and to society:

> Today, education is perhaps the most important function of state and local government. Compulsory school attendance laws and the great expenditures for education both demonstrate our recognition of the importance of education to our democratic society . . . Today it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust normally to his environment. In these days it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms.[3]

II. GOVERNMENT REGULATION OF THE SCHOOLS

The courts and other branches of government are devoting more and more attention to regulating schooling. As the rights of students have been articulated through litigation and legislation, the duties of schools have also become more crystallized. The right to an equal educational opportunity described in *Brown* has evolved from a proscription that schooling opportunities may not be allocated on the basis of race, to a series of additional proscriptions that schooling opportunities may not be allocated on the basis of geographic residence or community wealth, restricted on the basis of physical or mental handicap, or denied without due process of law. The duties of schools and school systems in cases such as these are fairly clear-cut. Schools must provide educational opportunities to black students on the same basis as they provide to white students. States must provide educational opportunities to students in poor districts on the same basis as they provide them to students in rich districts. Schools may not exclude students with handicaps from participation, nor may they exclude any student without a hearing that provides justification for doing so. In all of these instances, cases arise that are difficult to resolve; problems of defining equality and justice recur constantly. Nonetheless, the negative standard implicit in the proscriptive approach allows schools and school systems considerable latitude in performing their functions, so long as they do not intentionally violate the set of taboos articulated by the courts.

In the process of confirming the equal protection and due-process rights of students, however, judges, legislators, and bureaucrats have become increasingly prescriptive and results-oriented in their approach

to education policymaking. The *Brown* decision contained the seeds of this approach by holding, inter alia, that segregation has a harmful effect upon the educational and mental development of black children and implying that desegregation, by contrast, would have beneficial effects. In prescribing desegregation as a remedy to this harm, the Court linked the provision of equal educational opportunity to the outcomes of the educational process and took the first tentative step toward prescribing the functions of schools. Opportunity was to be construed as encompassing not merely access but also outcomes, and successful desegregation would be measured by increases in test scores rather than merely by the presence of black and white students in the same schools. School districts were not only to stop discriminating in their assignment of students to schools; the rationale, at least in part, was to improve achievement. Numerous school desegregation cases decided since *Brown* have used unequal educational attainment to impel a finding of unequal educational opportunity.[4] Some have prescribed remedies for low achievement as a part of the desegregation order.[5]

Similarly, lawsuits intended to correct inequalities in educational opportunities resulting from school district wealth have evoked judicial edicts which suggest that access to equal resources (commonly expressed in dollar terms) is but a means for improving educational attainment.[6] When the U.S. Supreme Court decided *San Antonio v. Rodriguez*, a suit challenging unequal expenditures among Texas school districts, it eschewed overturning the state school finance system by arguing, in part, that there was insufficient evidence to prove that the system denied children "an opportunity to acquire the basic minimal skills" necessary to exercise the fundamental rights of citizenship. The Court implied that there might be "some identifiable quantum of

education" necessary for the meaningful exercise of the rights of speech and of full participation in the political process.[7] While the Court did not indicate what that minimum amount of education might be, or how one could determine whether and when it had been attained, most interpretations of the language by legal scholars have suggested that the appropriate test of the minimum guarantee would have to involve assessment of educational outcomes.

> This concept of a minimum guarantee poses a two-pronged problem to be resolved by further litigation. The success or failure of the education provided to a group of children must be measured in terms of results, and some criteria must be formulated to determine when the education meets the constitutional standard to which the Court has alluded.[8]

The definition of a minimum standard of educational opportunity was discussed at length in the New Jersey school finance case *Robinson v. Cahill*. The state Supreme Court defined the New Jersey constitution's "thorough and efficient" clause[9] in the following terms:

> The Constitution's guarantee must be understood to embrace that educational opportunity which is needed in the contemporary setting to equip a child for his role as a citizen and as a competitor in the labor market.[10]

To the older, generally accepted notions that schools ought to prepare children to function in society as good citizens, the *Robinson* decision added effective competition in the labor market to the list of outcomes to be produced by schools. The idea that schools ought to prepare children to compete in the labor market reflects some relatively new concepts of the functions of schooling. It reflects the fact that children are not expected to be trained for a limited set of tasks predetermined by their parents' occupations or social status. It reflects the fact that increased social mobility has made the labor market

an increasingly competitive arena. It implies that preparation for work (especially for paid employment) is one of the primary functions of schooling, and legitimates demands for immediate "relevance" and for emphasis on "basics" in school curricula. It implies, finally, that readiness to compete in the labor market is a quality that can be quantified so that we can ascertain whether or not it has been attained by consumers of schooling.

As suggested by the *San Antonio v. Rodriguez* decision, there is here, again, a presumption of some minimum adequate amount of preparation which will satisfy the judicial mandate. The New Jersey court's decision did not turn upon the equal protection guarantees of the federal or state constitution, but rather upon the state constitution's education clause. The state's responsibility under this provision was interpreted to include equalization of both tax burdens and expenditures. In addition, the court concluded that "the State has a responsibility not only to provide financial assistance to the local district but also to delineate the broad terms of operation of the local district, both financially and educationally."[11] In agreeing to specify more clearly the functions of schooling, the court also felt compelled to require that the State, through its legislative and executive branches, specify more concretely how schools should operate, that is, how they should perform their educational functions. The fine line between proscriptive and prescriptive policymaking had certainly been crossed.

Donald Horowitz has observed that recent judicial actions are not limited to an exercise of veto power which restrains the actions of the other branches of government. Instead, "(w)hat is asked and what is awarded is often the doing of something, not just the stopping of something."[12] He traces a trend on the part of the judiciary "toward demanding performance that cannot be measured in one or two simple acts

but in a whole course of conduct, performance that tends to be open-ended in time and even in the identity of the parties to whom the performance will be owed."[13]

Likewise, court decisions asserting equal protection guarantees for classes of students such as handicapped children have charged states and school districts with the duty of providing an adequate and appropriate education for such students. To the proscription that such students may not be excluded from schools, courts have added the prescription that the education provided them must be suited to their needs[14] or appropriate to their learning capacities.[15] The requirement of suitable or appropriate instruction was extended to include the manner of providing education to non-English-speaking students in *Lau v. Nichols*.[16] In that case, the U.S. Supreme Court ruled that the San Francisco Unified School District discriminated against Chinese-speaking students by failing to provide them with instruction "suitable" to their educational needs. The children were effectively excluded from education, the Court ruled, because they could not understand English, the sole language of instruction. On the basis of the Civil Rights Act of 1964 and its regulations, the Court required the San Francisco school system to remedy the language deficiencies of its Chinese-American pupils so that they could benefit from instruction.

The adequacy and appropriateness of education provided to other children has been litigated in cases alleging misclassification of students in special education classes or lower "tracks" of the school program.[17] As Lindquist and Wise note:

> Classification or "tracking" of students according to the schools' best estimate of their educational ability is a generally accepted and widely practiced phenomena in American schooling. This process of selection, evaluation and placement of students lies at the heart of the educators' special claim to competency. Yet the increasing frequency of grievous instances of student "misclassification" has begun to change the judiciary's traditional deference to such professional decisions.[18]

In the initial cases of this genre, the courts ruled that assignment of students based primarily on the use of "culturally biased" tests was impermissible, since it resulted in invidious discrimination against minority students. Other suits alleging school district negligence or "educational malpractice" have been dismissed for lack of a definable standard of care,[19] but where a statutory duty has been established, the appropriateness of school practices has been successfully challenged. In one recent case, a federal district court awarded money damages to a handicapped child who, as a ward of the state, was not provided appropriate educational services.[20]

In still another case litigating the "appropriateness" of a school's program, a federal district court ruled that plaintiffs who speak "black English" are entitled to a special program to help them learn to read standard English.[21] The attorney for the plaintiffs noted that they did not want "black English" declared a separate language with possible bilingual classes. "We were looking at how to teach these kids to read," he stated.[22] Two aspects of this case seem particularly noteworthy. First, it is interesting that the plaintiffs found it necessary, or at least desirable, to bring the matter of teaching a group of students to read to the attention of the courts. Second, it is significant that the court decided it had an appropriate role to play in settling an educational issue of this kind.

Horowitz describes this phenomenon in *The Courts and Social Policy*, where he comments:

> . . . American courts have been more open to new challenges, more willing to take on new tasks. This has encouraged others to push problems their way--so much so that no courts anywhere have greater responsibility for making public policy than the courts of the United States.[23]

Legislating and Regulating School Effectiveness

Since the provision of education has become the subject of equal protection litigation, courts have assumed an increasingly prominent role in shaping policies for education. Judicial decisions, initially proscriptive in nature, have tended to become more prescriptive as litigation has become a more accessible avenue for educational reform. At the same time, judgments concerning equality of educational opportunity have been expanded to include judgments involving the adequacy and appropriateness of the educational programs provided to classes of children. In each of the major equal-protection arenas described above, we can trace the policymaking efforts of courts, legislatures, and government agencies through increasingly prescriptive and quality-conscious iterations of this top-down approach to educational problem-solving. In fact, in many areas where the courts have heretofore declined to intervene--declaring them the province of legislators or educational practitioners--actions undertaken by the legislative and executive branches of government have increased the likelihood that judges will be called upon to define the meaning and the limits of such concepts as educational adequacy, minimal competency, and teacher accountability.

The concern for the educational achievement of minority students voiced in *Brown* was carried forward in a national survey mandated by the Civil Rights Act of 1964. The Act required the Commissioner of Education to "conduct a survey . . . concerning the lack of availability of equal educational opportunities for individuals by reason of race, color, religion, or national origin in public educational institutions

of all levels in the United States."[24] The researchers who performed the survey, however, did not limit their investigation to equality of resources or inputs to the educational process; instead they extended their search to an examination of the relationships between various school inputs and outcomes as measured by verbal achievement scores of students.[25] The major impact of the Coleman Report, as it came to be known, was ". . . in *shifting* policy attention from its traditional focus on comparisons of inputs . . . to a focus on output, and the effectiveness of inputs for bringing about changes in output."[26]

That change in focus was reflected in other governmental efforts to aid disadvantaged students. Title I of the Elementary and Secondary Education Act of 1965 provided financial assistance to school districts with "concentrations of children from low-income families" to meet "the special educational needs of educationally deprived children."[27] In order to gauge the effectiveness of Title I programs, student performance data were to be used in performing "systematic evaluations" of the effects of Title I funded projects. A clear intent of Title I was to improve the effectiveness of the educational system, that is, to increase the level of measured achievement among children from poor families. The Education Amendments of 1974 clarified that intent by calling upon the newly-formed National Institute of Education to conduct a study of the effectiveness of compensatory education programs.[28] NIE was given three years to discover how to allocate funds to improve student achievement in reading and mathematics.

While the Institute found evidence of Title I effectiveness, its report also cited some unintended consequences of the system for regulating fund allocations. Although the program development requirements

are intended to allow wide discretion to school personnel in designing programs to meet the needs of educationally disadvantaged children, the complex legal framework governing the administration of the programs has often resulted in the adoption of "unduly restrictive policies."

> For example, some States and districts have planned their programs more conservatively than the law or the regulations require in order to avoid being charged with violations during program audits. In some areas the provision of special services in the regular classroom is forbidden and students are pulled out of class for their compensatory instruction, but Title I does not require or encourage either 'pullout' or 'in-class' programs.[29]

Ironically, the study reported a finding of increased effectiveness of in-class rather than pullout instruction, especially for primary school children. Although the regulations did not intend to prescribe the mode of operation of school programs funded by Title I, the effect of the regulatory system has been to restrict school administrators' perceptions of their discretionary authority. The massive regulatory structure for administering Title I, involving federal, state, and local educational agencies in developing procedures, monitoring programs, auditing budgets, and evaluating program results, has been invoked to ensure that monies appropriated by Congress are not only spent to provide services but are also spent in a manner which will improve students' achievement scores.

A more recent effort to provide equality of educational opportunity to students previously underserved by schooling institutions is the attempt to provide appropriate educational programs for physically and mentally handicapped children. Following a spate of court decisions which affirmed the rights of handicapped children to an educational program suited to their needs, states enacted laws requiring such services, state departments of education issued guidelines concerning how

an appropriate placement would be determined, and some funding was typically provided to ensure that the services would be available to eligible students. Overlaying these efforts, the United States Congress passed the Education for All Handicapped Children Act in 1975. The purpose of the Act is:

> . . . to assure that all handicapped children have available to them . . . a free *appropriate* public education which emphasizes special education and related services *designed to meet their unique needs*, to assure that the rights of handicapped children and their parents or guardians are protected, to assist States and localities to provide for the education of all handicapped children, and to assess and *assure the effectiveness* of efforts to educate handicapped children.[30]

In addition to making special educational services available to handicapped students, the Congress has sought to *assure* that the services will be effective and has required specific educational procedures and practices to achieve this goal. The State must "provide for procedures" for evaluating the effectiveness of the programs. The school district must "provide assurances" that it will establish an individualized education program for each handicapped child and will educate each child in the "least restrictive environment." The federal government, in turn, must assess the effectiveness of individualized education programs. States and local districts must "establish and maintain due process procedures for matters "relating to the identification, evaluation, or educational placement of the child, or the provision of a free appropriate public education to such child."[31]

It appears that the law stops short of prescribing the actual content of the educational program to be offered (save that it be individually determined and conducted in the least restrictive environment).

Presumably, Congress preferred to leave that question to the expertise of educational practitioners. There is yet some likelihood, though, that where the Congress left off, the agencies or the courts will intervene. Some advocacy groups have pressed the U.S. Office of Education to define such terms as "appropriate education," although the Deputy Commissioner for Special Education was doubtful that "it is the role of the federal government to get into the business of individual decisions of appropriateness."[32] OE would prefer to initiate a process "whereby local schools could define appropriate education for individual children." Others fear that federal courts will prescribe the content of an appropriate educational program if federal and state education agencies are slow to act. In fact, their fears may be justified.

A federal court in Pennsylvania has already interpreted the Act to require states to provide summer education programs to those handicapped students who need them, although the judge declined to specify which students require summer programs as part of a "free appropriate public education."[33] The state argued that its 180-day limit on the school year applied equally to all students. The court ruled, however, that "equality of services and programs is not the test for determining whether an appropriate education is being provided by the state." It is likely that future litigation will push the judicial system further toward defining a legal standard by which the appropriateness of educational opportunities may be judged. It is also likely that states will seek to fashion more specific definitions and guidelines for local school districts to follow in order to avoid being "dragged into the light of day by federal court cases."[34]

The pursuit of equal educational opportunity through school finance reform has also been accompanied by school accountability movements which seek to ensure effective and efficient delivery of school services. While the courts have generally articulated a negative standard of equity which prohibits a direct relationship between school district wealth and school expenditures, legislatures enacting school finance reforms have often tied such reforms to accountability and assessment laws. In some few cases,[35] courts have instructed state legislatures to define constitutional commands to provide "thorough and efficient" or "ample" education, and then to devise a system of funding schools which allows school districts to meet these requirements. Even absent such judicial guidance, state legislatures have devised increasing numbers of statutes which reveal a concern for ensuring educational achievement rather than for providing educational opportunities, and a concern with adequacy rather than equality. In his discussion of the evolution of approaches to equal educational opportunity, David Kirp notes that state legislatures have addressed the issue of school finance reform very differently from the judiciary:

> The judiciary searched for narrow, coherent standards by which to define a constitutional right concerning resource equity; *Robinson v. Cahill* is the conspicuous exception. Legislatures have taken a quite different tack, perceiving school finance as one of many interrelated reform concerns, among them . . . the imposition of cost controls on spendthrift districts, and the introduction of accountability requirements.[36]

Between 1963 and 1974, state legislatures enacted at least 73 laws encouraging school accountability through management and budgeting reforms, planning and evaluation procedures, and statewide assessment

of student performance. The vast majority of these statutes (66 out of 73) occurred subsequent to the onset of the school finance reform movement in 1969.[37] In many states there was a clear connection between pressures to fund schools more equitably and the imposition of cost-quality controls upon local school districts. All of the policies sought to make schools accountable for results by recommending specific techniques directed toward the improvement of educational outcomes. Each of them prescribed a set of procedures and practices designed to accomplish the goals of "adequacy," "efficiency," or "effectiveness" in education.

Recent attempts to legislate educational accountability have begun to mandate educational achievement by requiring that students pass minimal competency tests for promotion and/or graduation. By early 1979, 21 states had adopted or authorized measures of basic skills proficiency as requirements for student graduation.[38] All 50 states have undertaken some legislative or state board activity in the area of setting standards for schools or students.[39] Underlying the passage of minimal competency testing laws is the assumption that testing of basic skills will raise academic standards and increase educational achievement.[40] Donald Lewis identifies three major themes which are prominent in these efforts to mandate student achievement of specified standards:

> First, the state has a duty to establish as a goal of state-supported education the attainment of a certain level of proficiency in skills necessary to function as an adult citizen. Second, a testing device administered to students is the best, or most practicable, means of measuring whether the goal is being achieved. Third, the test results should be used to reassess and perhaps alter the manner in which the school system treats the child.[41]

Minimal competency testing, then, extends state responsibility for education to include not only the provision of opportunities, but also the guaranteed attainment by students of minimum proficiencies in specified skill areas. It requires that school districts not only provide educational services but that they do so in a manner that will be effective in producing particular outcomes. It requires that students not only attend school but that they acquire and *demonstrate* their proficiency in certain learning areas. Minimal competency requirements raise the possibility that where states have assumed a responsibility to guarantee student learning, students have been awarded the corresponding right to learn.

Educational malpractice suits which have heretofore been brought before the courts have failed in large part because the duty of the state or school district has not been specified as precisely as it would be under a minimal competency testing law. Nor have the methods for achieving adequate outcomes been specified as precisely as they would be under accountability legislation which requires the use of techniques such as performance-based education, competency-based teacher evaluation, or learner verification. In *Peter Doe v. San Francisco Unified School District*, one of the earliest educational malpractice lawsuits, the plaintiff's action was dismissed because the court could find no clearly definable duty of care owed to him by the state. The court commented that:

> Unlike the activity of the highway or the marketplace, classroom methodology affords no readily acceptable standards of care, or cause, or injury. The science of pedagogy itself is fraught with different and conflicting theories of how or what a child should be taught, and any layman might—and commonly does--have his own emphatic views on the subject.[42]

However, "accountability legislation may provide the standard with which courts can construct constitutional or common law duties to ensure minimally adequate education for children."[43] Further, the performance of these duties will have to depend upon particular theories of "how or what a child should be taught."

Whether the practice of education can be directed by state governments in this manner is a question that remains unanswered. What the unintended consequences may be of such centralized determination of educational practices is also a question which deserves further examination. As lawmakers (judges and legislators) at the federal and state levels of government turn their attention to devising policies intended to ensure educational achievement and attempt to prescribe methods for achieving school effectiveness, bureaucracies will enlarge or emerge to implement the policies. In order to minimize litigation, regulations will be issued which will seek to "cover the last possible case,"[44] perhaps restraining school personnel behaviors even more than is required by the law in an attempt to avoid potential violations.

Certainly, prescriptive policies which emphasize educational quality and productivity intend to alter the manner in which schools operate when the policy goals are not achieved. Yet, productivity questions are intrinsically more difficult than equity questions because they arise not out of a political impasse but from a fundamental lack of knowledge about how to teach. Many of the serious problems in education exist because there is no highly developed science or technology of education to help confront a problem. The absence of such science or technology, however, does not prevent the policymaking system from acting. On the contrary, where no theory exists, the policymaking system constructs its own theory of education.

The Policymaking System's View of Education

Legal responsibility for providing education is vested in the states. Federal and state governments alike have a responsibility to enforce equal protection of the laws. Operational responsibility for schools has traditionally been delegated to local school districts whose boards of education create policies for implementation by the schools' professional staff. This arrangement of authority, organization, and control means that local schools must operate under the directions which higher levels of authority choose to impose. Federal and state courts, legislatures, and educational agencies have a good deal to say about what local schools may or may not do in the course of providing education. "What distinguishes legislative and judicial policy from locally generated policy is that its principles are drawn more from legal than educational imperative. The necessary reliance upon law . . . tends to reinforce a legalistic conception of education and the school."[45] Legal policies are also distinguished by the fact that, in order to affect the behaviors of those at whom the policies are directed, laws must be general, uniformly applicable, and enforceable from a distance.

The current legalistic conception of schooling includes the following elements:

(1) While numerous goals for education are imaginable, it is important to find a limited set upon which agreement is possible.

(2) The goals, once determined, must be put into a form which will permit assessment of the extent to which they have been attained.

(3) The policymaking system, through its executive branch, must generate rules and procedures or designate practices which will facilitate goal attainment.

(4) Comparisons of performance will facilitate evaluation and improvement.

(5) Administrators must enforce the rules and procedures by monitoring the actions of teachers and by evaluating the progress of teachers and students toward goal attainment.

(6) Teachers must implement the designated policies by following the specified practices, rules, and procedures.

(7) Goal attainment must be measured; goals may be adjusted downward or the amount of services adjusted upward for certain classes of students.

(8) Continued non-attainment of any of the specified goals must trigger re-iteration of the steps listed above.

Absent from the legalistic paradigm is any method for determining how--or whether--the goals can actually be attained; there is no referent for assessing the nature and content of educational practice or how it affects the child. It is possible that this omission is due to the fact that policymakers do not yet possess the tools for legislating about the educational process, or, alternatively, because policymakers think that legislating something to occur is sufficient to cause it to occur. Horowitz suggests that the latter interpretation may be correct, since the judicial process generally tends to treat the modification of behavior as "a question of compliance or enforcement."

> In the simpler world of the common law--in which the adjudicative process is still firmly rooted--compliance was merely a question of obedience. *Ability to comply* could be taken for granted. The judicial process has not really faced up to the issue of compliance costs [i.e., difficulties of adjusting behavior to new rules of law] in social policy cases. Still less has it considered the problem of unintended consequences of decisions.[46]

The notion that schools may be unable to comply with certain policy edicts or that the policies may have unintended consequences is foreign to the legalistic conception of schooling. Furthermore, the capacity of the judicial system to respond to non-compliance or unintended consequences is limited by several aspects of the adjudicative process: it is focused on rights and duties, not on alternatives; it is a piecemeal, incremental process triggered only by grievances which reach its arena; its adversarial nature and the fact that litigants may not be representative make ascertainment of social facts difficult; and it makes no explicit provision for policy review.[47] While the legislative process is less severely restricted, it, too, tends to suffer from an inability to ascertain social facts, the recurrent patterns of behavior on which policy must be based. Even when legislatures are reluctant to make policies in areas about which their knowledge is limited, court decisions sometimes compel them to formulate law in areas where knowledge of human behavior is indeterminate.

This is the case when educational policies are devised which attempt to improve school effectiveness. The theory of education which underlies such policy development includes certain rationalistic assumptions about human behavior and learning:

(1) The child is pliable, at least within the range of normal aptitude and normal expectations.

(2) The teacher is pliable and will modify his or her behavior to comply with legislation, court orders, regulations, or scientific knowledge about education.

(3) A science of education exists which yields treatments that can be applied by teacher to student.

Policymakers who subscribe to the rationalistic model of schooling also accept certain assumptions about the way schools function. Basic assumptions underlying the rationalistic model include the following:

(1) Organizations have clear-cut goals that are understood and subscribed to by the members.

(2) Activities are planned.

(3) Activities are closely coordinated.

(4) The necessary information is available for making the informed decisions necessary to achieve the goals.

(5) Officials have sufficient control over the organization to ensure compliance with long-range plans.[48]

It is not at all clear that these sets of assumptions about human behavior and organizations are satisfied in the case of schooling. Recently, social scientists have proposed other models which may better explain what happens in school systems, schools and classrooms;[49] however, courts and legislatures--because of their limited enforcement capacities and their consequent need for formal, rational, and "objective" administrative systems[50]--must rely upon rationalistic, bureaucratic conceptions of schooling when they devise policies concerning the processes or outcomes of education. Michael B. Katz argues that bureaucracy is inevitable only "(i)f order, efficiency, and uniformity are

preferred to responsiveness, variety, and flexibility . . ."[51] The making of social policy through litigation is predicated upon the acceptance of the former set of values rather than the latter, thus the legalization of education is inextricably connected with the bureaucratization of education.

Bureaucracy is the organizational embodiment of the rationalistic model. Max Weber viewed bureaucratization as the rationalization of collective activities, and he described bureaucratic rationalization as a process involving either the weighing of a relationship between means and ends or the development of procedures which will ensure that a practice conforms to norms. In the first instance, rationalization occurs when the relationship between means and ends is known--when the ends are attainable given the means, or when the means are reasonable given the ends. In the second instance, rationalization occurs when established procedures and regulations ensure conformity to norms. When a valid relationship between means and ends is accurately determined, practices can be standardized to achieve the desired objectives. When an appropriate means for ensuring conformity to norms is accurately perceived, uniform procedures can be designed to attain the goal of conformity. These practices and procedures--because they are standardized and uniform--can then be transmitted from the center of bureaucratic authority to the bureaucrats who implement the mission of the organization. In either instance, of course, bureaucratic rationalization entails centralization of authority and decisionmaking, a hierarchic ordering of offices and staff roles, and operation according to centrally-determined rules of procedure.

Educational policymakers behave as though they believe that schools operate according to the rationalistic model.[52] That model postulates that schools operate by setting goals, implementing programs to achieve these goals, and evaluating the extent to which the goals are attained. The goal-oriented process is assumed to be effectuated through a bureaucratic distribution of formal authority and work responsibility. It is further assumed that the attainment of goals provides sufficient incentives to drive the system. Policies emanating from a belief in this model are designed to improve the operation of the goal-oriented process. Policies which promise to increase productivity and equity are imposed on the existing structure of the school in the anticipation that they will improve education. What may be wrong with the rationalistic model is that those who are attempting to change or control schools by reference to it are implicitly basing their actions on a set of assumptions that may be different from the assumptions, practices, and theories under which the schools actually operate.

To the extent that centralized educational decisionmaking depends upon assumptions about schooling which are unfounded, it may fail to attain the intended policy objectives and, further, it may generate unintended consequences. If rationalistic systems of thought applied to education do not adequately describe the process of schooling or the acts of teaching and learning, the result may be a phenomenon which we call hyperrationalization. Hyperrationalization is an effort to rationalize beyond the bounds of knowledge. It involves imposing means which do not result in the attainment of ends, or the setting of ends which cannot be attained given the available means--imposing unproven techniques on the one hand, and setting unrealistic expectations on the other.

III. THEORIES OF TEACHING, SCHOOLING AND EDUCATION

> Although we lack any clearly acceptable theory of schooling, we might be able . . . to detect an implicit theory underlying the various proposals that are made. Insofar as we can detect such a theory, we must conclude that it places great stress on the formal curriculum, on the program of instruction, and on the administrative features of education. Certainly, these are the forces we seek to manipulate when we direct our efforts toward the improvement of education. [53]

Policies directed at improving the educational system are often, as we have seen, based upon a rationalistic view of the processes of teaching and schooling. Policies which incorporate the use of such methods as competency-based teacher education, performance-based education, criterion-referenced testing for diagnosis and evaluation, and behavioral objectives are clearly designed to influence the behaviors of teachers in the classroom. They seek to rationalize the actions of teachers by specifying curricular goals and objectives, prescribing instructional methods for attaining the goals and objectives, and evaluating the extent to which the goals and objectives have been met.

Policies which prescribe management techniques such as planning, programming, budgeting systems (PPBS), management-by-objectives (MBO), program evaluation and review techniques (PERT), and management information systems (MIS) seek to rationalize the decisionmaking behaviors of administrators by specifying procedures for setting goals, for designing programs or methods to achieve the goals, and for evaluating the extent to which the goals have been achieved. Educational change is mandated by imposing rationalistic schemes for planning, teaching and evaluating performance upon existing schooling practices. Despite (or perhaps because of) the lack of a clearly definable or generally acceptable theory of education, the growing impetus for change relies on tools borrowed from other disciplines such as science, economics, law, and business.

> An increasingly complex apparatus has been built since [1950] to create and disseminate new approaches to public schooling . . . The superstructure of people involved in education but working outside schools is increasingly influential. The result of all this activity is a marked increase in the options available to those making educational decisions at all levels. . . The sheer knowledge of existing alternatives has an effect on the decisionmaking climate in schools and school systems. Nowadays the decision to do the usual thing is clearly a decision--it is not merely showing one's commitment to 'good practice.' For today, 'good practice' itself requires specific assessment as older verities give way to a new outlook which stresses rigorous goal specification and empirical validation of claims. The dilution of traditional ways of thinking supports those who uphold 'rationality' in school decisionmaking.[54]

The risk involved in generating prescriptive policies on the basis of a rationalistic theory of schooling is that the theory may be inadequate to describe the realities of teaching and learning. If this is the case, the policies will not achieve their intended objectives and may in fact have unintended, potentially harmful consequences. Although the policies may be quite salient to policymakers, they may be seen as irrelevant or even counterproductive by teachers. This study explores in a comparative way the rationalistic view of education promulgated by courts and legislatures and the views of education expressed by teachers. In this section, several alternative theories of teaching and schooling are presented and their implications for educational policymaking are briefly discussed.

The Rationalistic Theory

The rationalistic model is based on an approach toward the study of phenomena which has been highly developed in the sciences, particularly the physical sciences. In that arena, the long history of experimentation and research has given credibility to the assumption

that there are predictable relationships between interventions and effects, between stimuli and responses. Because the objects under study behave in easily discernable, systematic ways, it is possible to devise meaningful abstractions and simplifications of reality which will allow prediction of behaviors. Thus, if we know the size, shape, weight and density of a body of matter, we can predict with reasonable certainty the amount of applied force needed to move it a given distance. Because cause and effect relationships are known (or can be discovered) given the availability of pertinent facts, it is possible to uncover reasons which explain the occurrence of any event or condition. It is possible to rationalize reality.

Those who apply a rationalistic approach to education assume that the processes of teaching and learning rest on an underlying order. The assumption of predictability requires a view that students are essentially passive objects, hence each student of X, Y, and Z characteristics will react in the same way when a given stimulus or treatment is applied by the teacher. Outcomes are predictable; all that remains for decisionmakers to devise is a correct specification of inputs or processes. Results are achieved by the deliberate application of rationally-conceived practices. Productivity will increase in direct proportion to the amount and kind of deliberate effort exerted by the teacher.

A rationalistic view of teaching presumes that once the goals of education are decided upon by external authorities, administrators will define behavioral objectives and teachers will teach to those objectives. Teacher and pupil performance can be tested; these assessments will

yield meaningful measures of the success of the educational enterprise. The tests will give a clear picture of student and, by implication, teacher competencies. Objectively measured student competencies can be linked to other objectively measured teacher competencies because the student is an empty organism to be shaped in deliberate ways by the teacher-trainer. The teacher is to deliver a product which fits the specifications described by the goals and objectives.

The schooling process in the rationalistic model is characteristic of bureaucracies. It entails (1) a functional division of labor, (2) the definition of staff roles as offices which are distinguished by functional specificity of performance and universalistic, affectively neutral interaction with clients, (3) the hierarchic ordering of offices, and (4) operation according to rules of procedure which set limits to the discretionary performance of officers by specifying both the aims and the modes of official action.[55] By conceiving the teacher as bureaucrat, the model does not allow for variations in teacher or student temperament, interests, or styles. The model may be too simple for describing classroom life because of its assumptions that objectives can be standardized and that teaching and learning processes can be simplified and controlled.

The Spontaneous Theory

Perhaps the most directly contrary concept of schooling to the rationalistic view is the spontaneous theory articulated by John M. Stephens. He notes the "remarkable constancy of educational results in the face of widely differing deliberate approaches,"[56] and he speculates

that effective schooling is less dependent on deliberate, rational decisions than on spontaneous tendencies possessed in varying degrees by all human beings. He suggests that theorists make a great mistake

> in regarding the management of schools as similar to the process of constructing a building or operating a factory. In these latter processes deliberate decisions play a crucial part, and the enterprise advances or stands still in proportion to the amount of deliberate effort exerted. If we must use a metaphor or model in seeking to understand the process of schooling, we should look to agriculture rather than to the factory. In agriculture we do not start from scratch, and we do not direct our efforts to inert and passive materials. We start, on the contrary, with a complex and ancient process, and we organize our efforts around what seeds, plants, and insects are likely to do anyway . . . The crop, once planted, may undergo some development even while the farmer sleeps or loafs. No matter what he does, some aspects of the outcome will remain constant . . .[57]

The student here is regarded as an active organism who possesses an ability to grow and to learn even in the absence of deliberately-applied instructional techniques. Stephens further postulates that teachers possess spontaneous manipulative and communicative tendencies which would, in and of themselves, "induce a substantial measure of educational attainment even in the absence of rational, deliberate decisions, in the absence, indeed, of any intent to teach."[58] These tendencies include the urges of human beings to manipulate their environment in ways which have little immediate survival value, to talk of things they know, to applaud or commend some performances and to disapprove or correct other performances, to supply an answer which eludes someone else, and to point to the moral or the reason for a particular occurrence or outcome. These same tendencies are used to activate the mechanisms in students which engage learning.

> (H)owever much he may add to them, the teacher never relinquishes the spontaneous forces. These blind, automatic tendencies are inevitably at work when even the most sophisticated teacher deliberately sets out to instruct. Underlying his deliberate intention, these automatic, spontaneous tendencies inevitably bring about motivation, practice, reinforcement, guidance, and the enhancement of insight.[59]

The spontaneous view of teaching assumes that the goals and objectives of education are many, diverse and often unrecognized, since schooling cultivates a wide range of behaviors and knowledge which may have remote, unforeseen survival benefits. Efforts to specify or restrict the goals of education may be counterproductive since they may limit or exclude the cultivation of potentially useful traits. Such efforts are also unrealistic because "the teacher is the crucial factor in the process, . . . his actual interests determine the effective curriculum, and . . . his minute-by-minute classroom activities are not susceptible to precise control by others but stem instead from ancient, beneficent tendencies deeply ingrained within him."[60]

The teacher is conceived as director of an organic process who "stimulates here, provides nutriment there, and confidently accepts one outcome and rejects another . . ."[61] The role of the administrator is to recruit individuals who are well-endowed with the spontaneous teaching tendencies, provide them with facilities and an audience, "and then gracefully jump clear." Policies which seek to improve education should be based on an understanding of the organic process of teaching and learning, should seek to intrude as little as possible into the classroom, and should focus on the provision of extra resources or expertise in the unusual cases where students do not respond to the normal procedures used by teachers.

The organizational model underlying the spontaneous theory corresponds most closely to the natural systems model employed by some social scientists to look at organizations.

> In the natural systems model, organization 'policy' accumulates crescively and in an unplanned manner . . . (T)he model implies that power is dispersed, partly because authority is deliberately decentralized and also because of 'slippage' that can occur between the levels at which policies are formulated and those at which they are implemented . . . Also the hierarchy accentuates communication problems; the longer the hierarchy the more distortion that can take place at each successive lower level, due to misinterpretations as well as to conflicts of interest between subordinate and superordinate groups.[62]

The natural systems model begins to explain the difficulty described by Stephens in implementing curricular goals and objectives set at the top of the administrative hierarchy.

> The original statements of the [curriculum] committee will will act as stimuli for one set of people such as subject-matter supervisors. These people, in turn, will react to the stimuli, possibly merely mirroring what they reeeive, more likely, incorporating much of themselves into the reaction. Their reactions will then act as stimuli for a second set of people who will also react in their own way. After a number of such intermediary transactions, someone, the teacher, will apply some stimuli to the pupil himself . . . Since the curricular 'message' that we may direct toward the student is to pass through so many people and is to be reinterpreted by each one, it seems unrealistic to strive for precision in the minutia of such statements. It seems hopeless to try to control the teacher's behavior in any detail through a series of messages that we may never recognize by the time they reach him and which may be clearly reorganized by the time they leave him.[63]

The assumptions of the natural systems model differ from those of the rationalistic model in important ways. In fact, Corwin views the two models as representing opposing extremes on a set of organiza-

tional characteristics.[64] The natural systems model assumes the following organizational characteristics:

(1) Absence of consensus among the membership on values, norms, and objectives;

(2) Functional autonomy of the parts of the organization;

(3) Bargaining and compromise to decide the terms of the relationship in the absence of consensus;

(4) Decentralization of power which imposes constraints on the ability of the central office to impose its will on members of the organization;

(5) Incomplete information for making decisions; and

(6) Lack of coordination in planning and policymaking.

Corwin reasons that this model most accurately describes organizations with long hierarchies where the higher levels are directly linked into the political system and the organization is vulnerable to outside influences. The model is also useful, he suggests, for understanding organizations which operate in turbulent environments which impinge on the organization's ability to plan and maintain control. Corwin speculates that "(t)he demand from many groups that schools should be made more 'accountable' for their effectiveness could help to counteract the goal displacement characteristics of turbulent environments,"[65] thus making them more rational.

The view of teachers implicit in the natural systems model is compatible with that proposed by Stephens' spontaneous theory. Teachers maintain their own values and pursue their own objectives despite edicts

from higher authorities. Because they are functionally autonomous and de facto power is decentralized, and because planning and policy-making are not highly coordinated, teachers do not govern their routine actions with reference to the deliberate decisions made by others in the hierarchy. They may accede to some rationalistic procedures through a process of bargaining and compromise, but these will never eliminate whatever spontaneous tendencies teachers bring with them to the classroom.

The Humanistic Theories

Both the rationalistic and the spontaneous theories described above presume that schooling should provide some benefits to society by preparing children to become good citizens and workers or by cultivating behaviors and knowledge which may yield long-term survival benefits for the group. While the former relies on deliberate specification and the latter on spontaneous human tendencies to produce these social benefits, both predicate the existence of schooling on the expectation that the social order will be enhanced by the training of children to acquire knowledge and behaviors deemed important by adults. Of course, some benefits are expected to accrue to the individual child as well, but these are secondary, long-range, and adult-determined.

Included here under the heading of humanistic theories are those perspectives which place the individual child at the center of the educational process and which, to varying degrees, attribute to the child both choice and responsibility for what he learns. Under rubrics such as humanistic and progressive education, child-centered approaches to education assume that children will instinctively or intuitively learn whatever it is they "need" to know if given an

environment which is diverse and stimulating. Whatever rational role is accorded to providers of schooling is limited to decisions concerning what kinds of stimuli will be included in the educational setting. The primary goal of schooling is not to prepare children for adult occupations or citizenship, but to help them to satisfy their innate curiosity. The various approaches share a nucleus of ideas which relate to the view that

> the child should be allowed to develop his own inner potential rather than have ideas and techniques from the adult world imposed upon him, thus denying the child's own integrity and inner being. Rather than focusing attention upon the preparation of the child for adult life, treating the child as nothing but an adult in the making, or allowing the child only the minimal necessary education in terms of the skills required for adult functioning, the child centered approach aims, by treating the child as a unique subject with its own needs and interests, to extend to the child as large a measure of autonomy as is consistent with a liberal democratic view of society. . . . The child is no longer regarded as an 'empty vessel' to be filled by the teacher, but to a large extent as an arbiter of his own education. He is allowed to follow his own interests; in exercising his 'right to choose' he acquires self-control and responsibility.[66]

The approaches that might be ascribed to a humanistic theory of education vary greatly in the amount of authority accorded to administrators and teachers for making decisions about curriculum and instructional methods. The brand of progressivism urged by John Dewey encouraged a problem-solving rather than a subject matter approach to learning, an emphasis on learning by doing, and a recognition of the importance of emotional as well as intellectual development in the child. Others have reasoned from his concepts that "the school sets

out deliberately to derive the right environment for children, to allow them to be themselves and to develop in the way and at the pace appropriate to them . . . It lays special stress upon individual discovery, on first hand experience and on opportunities for creative work."[67] Curricular concerns and timetables are unseated by concerns for individual growth at different rates and in different directions. The school need only provide "the right environment" so that the child's instinctive, organic growth processes can flourish.

The "magical child" concepts of Joseph Chilton Pearce (and others who espouse transcendent or transpersonal education) incorporate the agricultural analogy of schooling put forth by Stephens into a framework which, by its reference to "magical," undeliberate development, might be termed irrationalistic--based on "a system emphasizing intuition, instinct, feeling, or faith rather than reason."[68] Pearce's theory suggests that certain deliberate interventions may harm the child's natural development and, further, that pursuit of societal goals may conflict with individual growth.

> Pearce assumes that just as there is a biological plan for the development of a seed into a mature plant, there must be a biological plan for the growth of the human mind/brain and the whole human organism, and that if there is proper nourishment and no interference with the biological plan nearly every child could approach a superhuman quality of life. . . Pearce suggests a present conflict between the infant's biological intent and society's imposed intentions, a conflict that could be largely avoided if we placed fewer restraints on the young child. He cites Hans Furth's assertion, for example, that requiring the child to learn reading and writing virtually stops intellectual growth for about four years and poses the possibility that the teaching of reading might profitably be delayed to as late as age 11.[69]

Mary Anne Raywid's discussion of five models of the teaching-learning situation that have assumed increasing prominence over the past decade uncovers similar assumptions about the nature of learning and the process of education.[70] Based on the thinking of reformers such as John Holt, A. S. Neill, Ivan Illich, and even Karl Marx, these models involve a range of child-directed learning processes which envision the school as a "bazaar" or an "amusement park," or which do away with the school altogether (the "just be" model). The "praxis model" emphasizes learning by doing within the community, and the "Siddhartha model" portrays the individual student as a seeker requiring an idiosyncratic and personalized learning program. In each of these models, the teacher's role is to fashion an environment or provide stimuli in response to the student's expressed needs and interests. Neither the teacher nor the school system holds any claim to superior knowledge about what or how the student should learn. Testing what learners have learned is irrelevant to the goals and assumptions implicit in the models.

Obviously, for those who subscribe to a humanistic theory of education, there is little or no need for a highly rationalized organizational structure to administer or make policies for schools. How can one prescribe minimal competencies or behavioral objectives for groups of children when the curriculum and mode of instruction vary from child to child? While presumably all adults engaged in the schooling venture work together to facilitate the growth of the whole child, the dictates of the educational program stem from the bottom--from the child--rather than from the top of a hierarchy. "At the level of the teachers' classroom practice and in the ethos of the school, the aim is towards a fluid

harmony of cooperative actors allowing full and free expression on the part of the children."[71] To the extent that any organizational model is compatible with this ideal, the assumptions of harmony, cooperation, and fluidity suggest an organic model. According to Corwin, the organic model assumes harmony among the parts, a high degree of interdependence among the parts, and balanced reciprocity. "The 'rationality' of the system (in the sense of correspondence between ends and means) is not derived from managerial control, expertise, and planning but from functional interdependence among the total system."[72]

The humanistic theory is not a direct counterpoint to the rationalistic and spontaneous theories. The first two are clearly models of teaching and its control; the third is a model of *education* which, like the spontaneous model, is not compatible with rationalism. A fourth model to be described later (pp. 57 and 58) views the teacher as a broker between the demands of policy and the impulses of spontaneity. For analytical purposes, our main distinction is between those policies which are highly rationalistic and those which are less rationalistic. In reality, we expect to find few, if any, teachers who adhere to a single model.[73]

Implications of the Theories

The theories and models described above differ significantly in their explanations of the nature of teaching and learning, the processes of schooling, and the ways in which educational organizations operate. At the heart of the rationalistic theory stand the policymaker and the administrator who rationalize the operations of the school through deliberate decisionmaking and procedure-setting. In the spontaneous theory, the teacher is the central figure. "The rest of the vast educational enterprise chiefly serves the purpose of permitting the teacher to give spontaneous expression to the educated man he finds within himself--and in so doing, to foster useful

intellectual growth in his pupils."[74] The individual child is the focal point for the humanistic theory, and the schooling system revolves around his needs and interests in providing an environment to facilitate his development.

The distinguishing elements of the theories include differences concerning how goals for education are set (and by whom), what the goals in fact are, how they are to be transmitted among and operationalized by the various actors in the schooling process. The actors are variously viewed as active or passive, deliberate and rational or spontaneous and instinctive. The components of the educational system are variously perceived as autonomous or interdependent, tightly or loosely coupled, vertically or horizontally integrated, consensual or individualistic in their perceptions of values, norms, and objectives. De facto power may be perceived as centralized at various hierarchical levels or relatively decentralized.

Depending upon which theory of education one subscribes to and which model of the educational process seems most aptly to describe what one observes, the appropriate roles and tasks of policymakers, school administrators, teachers and students will appear quite different. Certainly if policymakers and practitioners view the reality of schooling in vastly different ways, policies and practices will be dissonant, and intended policy outcomes will be unlikely to occur. It is likely, too, that various actors in the educational system are unaware, both individually and collectively, of the assumptions upon which their respective models depend; hence, the reasons for any disjunctures which may occur between policy and practice are obscured. If a solution based upon one's theory does not succeed, the answer is to specify the treatment more precisely and to apply it more rigorously, for the solution itself appears unquestionably correct.

> The sociology of knowledge argues that scientific thought, and especially thought on social and political matters, does not proceed in a vacuum, but in a socially conditioned atmosphere. It is influenced largely by unconscious and subconscious elements. These elements remain hidden from the thinker's observing eye because they form, as it were, the very place which he inhabits, his *social habitat*. The social habitat of the thinker determines a whole system of opinions and theories which appear to him as unquestionably true or self-evident . . . This is why he is not even aware of having made any assumptions at all. But that he has made assumptions can be seen if we compare him with a thinker who lives in a very different social habitat; for he too will proceed from a system of apparently unquestionable assumptions, but from a very different one; and it may be so different that no intellectual bridge may exist and no compromise be possible between these two systems. Each of these different socially determined systems of assumptions is called by the sociologists of knowledge a *total ideology*.[75]

Our concern for investigating the views of teachers toward teaching and schooling stems from a recognition that the teacher is the central figure within the classroom where educational policies shaped by higher authorities must ultimately be implemented. If educational policymakers are inclined to embrace a highly rationalistic model of the school while teachers are inclined to embrace less rationalistic models of schooling, then the policymaking system may not be communicating with the operating system. The two systems, because they are based on different ideologies and theories of education, are only loosely coupled. Policymakers create policies which are consistent with the rationalistic model and which would work if the model were a good representation of school reality. If practicing educators do not believe in the rationalistic model and do not share its assumptions, the policies will not work as intended because educators will be unwilling or unable to accommodate their behavior to the model.

As Raywid observes:

(T)he choice of an image or a model learning scene is a choice of no small consequence . . . It is not entirely clear whether the particular image or metaphor summarizing the ideal learning scenario for each of us is something that causes, or is itself caused by, our views of educational theory . . . Either way, probably the choice occurs without much conscious deliberation for most of us. But once made, it can influence a good many classroom decisions.[76]

IV. TEACHERS' VIEWS

How teachers view teaching has been the subject of two important books--Philip W. Jackson's *Life in Classrooms*[77] and Dan C. Lortie's *Schoolteacher*.[78] From these books emerges a picture of teaching and teachers which stands in dramatic contrast to the concept of rationalistic teaching. These research efforts and others have suggested that the events, conditions, processes and outcomes which teachers perceive as salient and relevant to their work are different in some important respects from the view of teaching implicit in the rationalistic model. Of course, the Jackson and Lortie data were collected some years ago, and it is possible that teachers' views of teaching and learning have changed over the last decade or so. Whether this is in fact the case is one question this study will attempt to answer. Other major questions to be addressed include: To the extent that teachers' view conflict with rationalistic assumptions about teaching, why do teachers continue to hold such views in the face of pressures to change? What are the experiences and kinds of information upon which teachers base their implicit theories of teaching and learning? How do teachers respond to--or cope with--policies which seek to change their behaviors or their approach to their work?

This section reviews some of the past and current research on teacher thinking and explores some preliminary hypotheses concerning why teachers may think and operate as they do.

Teachers' Goals, Aims, and Implicit Standards

The rationalistic model assumes that the underlying objective of the teacher is to maximize individual and aggregate academic achievement as measured by objective test scores. Yet, in examining sources of teacher pride and satisfaction, both Lortie's study and Jackson's found

that teachers placed little emphasis on objective group results. Jackson noted that "testing, when it is mentioned at all, is given little emphasis. These teachers treat it as being of minor importance in helping them understand how well they have done . . . The students' enthusiasm and involvement seem much more important than do their performance on tests."[79] Similarly, Lortie found that "a few elementary teachers linked pride to favorable outcomes on achievement tests, but they seemed hesitant to do so."[80]

In addition to assigning little importance to the results of tests as a source of pride, the teachers interviewed by Lortie did not seem to judge their effectiveness in short-run, objectively measurable terms. They felt that the effectiveness of their work would be reflected in the later lives of their students; most of them emphasized moral outcomes and positive student attitudes toward learning as the primary goals of their teaching. While the rationalistic model abstracts and simplifies reality, allowing for discrete, measurable outcomes and assessment, these teachers seemed unwilling to accept this view of the purposes or outcomes of their work; they saw themselves as responsible for a whole, real child.

Lortie notes that, "compared with other crafts, the work processes in teaching, and the products sought by teachers, are difficult to measure by several assessment criteria."[81] The intangibility of teaching goals makes it difficult to use a fixed model as a guide for comparing intermediate outcomes with the goal; the number of influences upon a child makes assessment of the teachers' impact relative to others inherently troublesome; the purposes of education are many, and some are controversial; and the changefulness of maturing children renders the nature and timing of appropriate assessment ambiguous. "The teachers' craft," he concludes, "is marked by the absence of concrete models for emulation, unclear lines of influence, multiple and controversial criteria, ambiguity about assessment timing, and instability in the product."[82]

Advocates of the rationalistic approach will argue that accountability schemes are designed to focus the teachers' attention on concrete, objective output measures. Indeed, it is likely that when such goals are emphasized, teaching for the test will occur. However, whether teachers will fundamentally alter their orientations is quite another matter. One might speculate that the recent plethora of accountability legislation may have changed the ways in which teachers regard their roles and the criteria by which they judge their performance. A nationwide teacher opinion poll conducted by the National Education Association in 1979 suggests, though, that at least insofar as standardized tests are concerned, teachers' views have not been substantially changed. Most of the respondents to that survey felt that group standardized achievement tests do not measure the really important aspects of a student's progress, are not reliable criteria for grouping or tracking students, and should not be used to determine students' promotion or retention. The teachers overwhelmingly disagreed that scores on such tests are valid measure of teacher effectiveness or of educational quality in schools. More than three-quarters felt that the elimination of all standardized tests would have no effect on their teaching.[83]

Jackson suggests that teachers' distrust of standardized tests is founded on their beliefs that children behave atypically on tests--the tests do not measure what the children really know--, and that performance on achievement tests is more a reflection of the children's own ability than of teaching effectiveness.[84] Lortie, too, observes that teachers discuss achievement test performance "as if they are uncertain of the tangibility of measured gains or the rightfulness of their claiming credit for them."[85]

These attitudes, if they are accurate representations of teachers' beliefs, suggest that teachers do not share at least two of the assump-

tions upon which the rationalistic model of teaching is based. First, they do not seem to accept the tenet that objective measures of outcomes or achievement are valid indicators of goal attainment. Either the tests do not measure the attainment of certain important goals, or the test results do not accurately represent students' knowledge in the areas which are tested. Second, teachers do not seem to believe that student learning is a direct function of teaching treatments, that teaching interventions have predictable effects upon student outcomes. They seem instead to view students as dynamic actors in the learning process; such factors as motivation, personality, experiences, and maturation are seen as contributing at least as much to student learning as do teaching strategies and methods.

Numerous comments made by teachers in Jackson's and Lortie's samples express a belief that children develop more or less spontaneously and suggest a view that the teacher can only facilitate or guide the learning which children do "on their own." When describing instances in which a child suddenly "woke up" or "saw the light," the teachers were quick to point out that the advances could have been the result of the children's own development rather than the teacher's efforts. When they cited their own actions at all, the teachers mentioned the encouragement they had tried to give to the children.[86]

As one teacher remarked:

> The achievement in the year, when you know our schedule and situation, means that the kids' progress and hard work is phenomenal. I'm proud of them for doing it and I guess of myself for keeping them together and needling them to do it.

This view of how learning takes place would seem to encourage a focus on the process of education rather than the product, since the former can be influenced by teachers while the latter--in this view--cannot be reliably controlled. In *Teachers vs. Technocrats*, Harry Wolcott observes a

contrast between "an orientation to means among teachers and an orientation to ends among technocrats."[87] The differing orientations toward process and product are consonant with his observations that teachers are oriented toward the present while technocrats (researchers and administrators) are oriented toward the future. Finally, Wolcott observes, the teacher's orientation is toward the personal elements of a situation, while the technocrat is oriented toward objective aspects of the task at hand. The value systems of teachers and technocrats are different in ways that produce tensions between their goals and their styles.

> (T)eachers seem to place little value on the formal elements of authority, power, and control. Their value system turns on processes of becoming rather than on processes of controlling. Learning is at the apex of that value system; teaching is the instrumental activity through which teachers help others to achieve it.[88]

Differences between the value and belief patterns of teachers and administrators have also been examined by Phil Cusick in a study which found that teachers value personal relationships and the development of positive social attitudes over such things as achievement on standardized tests, administrative evaluation, and changes in instructional technique. Administrators trying to impose rational management models, on the other hand, value clear statements of intended outcomes, goals and objectives, and administrative evaluation over the humanistic concerns voiced by the teachers.[89]

> . . . teachers devote their efforts toward creating mini-communities within their classrooms. These communities are then the vehicle through which instructional activities are undertaken. Classroom communities tend to emphasize the group rather than the individual, resist change and outside influence, and emphasize individual behavior that is collectively oriented . . . On the other hand, rational management models imposed upon classrooms by administrators and those outside the classroom tend to emphasize individual student achievement, cognition, abstract models of instruction, coordination of teachers' efforts, and evaluation by outsiders, among other things.[90]

The characteristic resistance to change and to outside influence on the part of teachers cited by Cusick was observed by Lortie, who linked the conservative ethos of the teaching occupation to the lack of a technical culture in teaching. "Reflexive conservatism," Lortie remarks, "implicity denies the significance of technical knowledge, assuming that energies should be centered on realizing conventional goals in known ways."[91] Jackson also comments on the absence of a technical vocabulary in his conversations with teachers, noting a conceptual simplicity in their talk characterized by an intuitive, rather than a rational, approach to classroom events, and an opinionated, as opposed to an open-minded, stance when confronted with alternative teaching practices.[92] Both Lortie and Jackson observed a resistance to outside influence on the part of teachers which was reflected in their emphasis on boundedness in the classroom. The importance of "sharp existential boundaries" was expressed in teachers' desires to minimize outside interruptions and distractions and their efforts to maximize their control over student involvement.[93]

In an ethnographic study of a teacher's classroom perspective, Janesick[94] found that the outlook of the elementary school teacher she studied could be characterized by "his concern for creating a stable and cohesive group and maintaining that group. The teacher made plans and interpreted events in terms of their impact on the 'groupness' of the class . . . He modeled and emphasized cooperation and respect for other group members and he designed activities that generated a high level of group consensus."[95]

The notion that teachers devote a major part of their efforts toward the development of classroom communities--bounded and cohesive territories protected from intrusion--suggests that their views may be described by

what has been termed in the sociological literature as a "gemeinschaft" (localistic or community) orientation.[96] Sociologists since Durkheim[97] have posited that human knowledge systems and behavior are influenced by different forms of social organization. What is central to a person's outlook is in large part determined by the social system in which he functions. Two main forms of social organization--community (or Gemeinschaft) and society (or Gesellschaft) have been examined and characterized as representing differing world views and, consequently, behavior patterns of groups members.[98]

In a Gemeinschaft, social relations are effectively defined by norms and by tradition; personal and emotional controls govern individual behaviors. The community is characterized by set territorial boundaries and organic interdependence; it is stable and closed to outside influence. Solidarity is the result of a shared system of mores and mutual correspondence of interests. In a Gesellschaft, rational self-interest operates to weaken traditional bonds. Social relations are governed by laws, regulations, and other formal control mechanisms. The society is characterized by segmentalization, specialization, standardization, and competition; utility and efficiency are valued over moral imperatives.[99]

These two different forms of social organization are also distinguished by contrasting types of knowledge systems.[100] The Gemeinschaft has been characterized as representing a "sacred" school of thought; the Gesellschaft, a secular conceptual system. Durkeim advanced the proposition that "the attitudinal distinction between treating things as sacred and as profane is basically the same as that between moral obligations and expediency or utility . . ."[101]

Max Scheler's work continued the comparison by indicating that:

> . . . Gemeinschaft types of society have a traditionally defined fund of knowledge which is handed down as conclusive; they are not concerned with discovering or extending knowledge. The very effort to test the traditional knowledge, in so far as it implies doubt, is ruled out as virtually blasphemous. In such a group, the prevailing logic and mode of thought is that of an "ars demonstrandi" not of an "ars inveniendi." Its methods are prevailingly ontological and dogmatic, not epistemologic and critical; its mode of thought is that of conceptual realism, not nominalistic as in the Gesellschaft type of organization; its system of categories, organismic and not mechanistic.[102]

This paradigm may prove a useful frame of reference for observing and describing the implicit theories of teachers. The Gemeinschaft system of knowledge corresponds rather closely to the observations presented earlier that teachers rely little on objective measures of effectiveness, that they are tradition-oriented rather than change-oriented, and that they do not seem to recognize as salient a body of technical knowledge for teaching. The Gemeinschaft orientation toward normative social interactions based on a sense of community may also be a useful way of viewing teachers' apparent emphasis on interpersonal relations in the classroom and on the affective outcomes of teaching.

The "sacred" quality of this school of thought is suggestive of Jackson's observation that teachers' views of children are characterized by romantic idealism and mystical optimism, "a quasi-mystical faith in human perfectability."[103] Jackson speculates that this "tender-minded" view may have an adaptive significance which has remained hidden from "researchers and others who believe their mission in life is to dispel such old-fashioned views."

Lortie observes, further, that "(t)he ideals [of teachers] presume a high level of interpersonal impact on the part of the teacher; he must

change moral or emotional attitudes or permeate the consciousness of every student."[104] Lortie's later analysis of the conditions under which teaching occurs suggests that the adaptive significance of teachers' views of children and of their own role in realizing that potentiality may be grounded in the peculiarities of the work that teachers do. He notes that "teachers do 'people work,' but they do it under somewhat special conditions."[105] First, the low degree of voluntarism in the teacher-student relationship is reflected in the fact that children and teachers do not choose each other; they are assigned to each other by third parties. Second, the problem of extracting work from immature, "conscripted" workers means that teachers must "forge bonds which will not only ensure compliance but . . . generate effort and interest in learning jobs . . . "[106] Finally, the classroom setting for teachers endeavors requires that goals be met and relationships managed in a group context.

Given this situation for accomplishing teaching objectives, it would not be surprising for teachers to feel that their first order of business must be the development of interpersonal ties and a shared sense of group purpose in the classroom. Without these underpinnings for consensual social relations, student effort and interest could not be directed toward learning tasks.

In fact, Lortie's respondents identified interpersonal capacities and dispositions most often as the qualities which characterize effective or outstanding teachers.[107] Similarly, B. L. Anderson's study of teachers' judgments of teacher effectiveness found that interest in individual students was the characteristic considered most important

in reaching a judgment of teacher effectiveness, whereas characteristics relating to teaching techniques or practices--such as the establishment of objectives, use of classroom discussion, and homework requirements--were considered least important.[108]

In sum, then, prior research on teachers' views--their goals, aims and their standards for judging effectiveness--indicates that there may be several points of disjuncture between teachers' values or ideals and those implicit in a rationalistic model of teaching. If the findings of the studies cited above are accurate current descriptions of teachers' thinking, their primary goals stress the moral or affective outcomes of learning; they place little faith in objective measures of cognitive achievement as reflections of student learning or teacher effectiveness; their aims in the classroom are process-oriented rather than product-oriented; and they emphasize interpersonal capacities over technical abilities when they consider standards for good teaching.

Several questions naturally arise regarding this capsulation of teachers' views. First, do teachers still commonly articulate these kinds of outlooks, or has a more "scientific" approach replaced these emphases in their thinking? Second, do teachers' views vary across different school or classroom settings? Are there systematic differences in the statements of goals or purpose of teachers who work in schools or school districts of different sizes, with different pupil populations, or within different organizational structures? Do teachers who work with pupils of different ages or ability levels hold different views?[109]

Finally, given that teachers' conceptions of their goals and their standards for judging effectiveness have some impact on their teaching

behaviors, what discernible influence do these beliefs have on teachers' willingness or ability to accommodate district, state, or federal level policy mandates in their day-to-day teaching activities? Do teachers feel they can pursue several sets of goals simultaneously? Are their value systems permeable to change or to outside influences? Can they absorb practices based on divergent philosophies of teaching into their work without conscious discomfort or dissatisfaction?

Answers to these questions will require some understanding of how teachers approach their instructional tasks--how they attempt to achieve their goals and fulfill their implicit standards for effective teaching. The next section presents research findings relevant to these topics and further explores their implications for teachers' views of educational policies.

How Teachers Plan and Conduct Instruction

The rational model of teacher planning first proposed by Tyler[110] recommends four fundamental steps for effective planning:

(1) specify objectives;
(2) select learning activities;
(3) organize learning activities;
(4) specify evaluation procedures.

This model can be characterized as a rational means-ends model in which the first step is to decide upon the ends (objectives) to be accomplished, and the succeeding steps involve the choice of means (activities) and assessment procedures for measuring the attainment of the goals.[111]

The rational planning model has been used for several decades both to describe and prescribe teachers' planning processes. A number

of recent studies, however, have indicated that, in actuality, "learning objectives are seldom the starting point for planning. Instead, teachers plan around their students and around activities."[112] Researchers who have studied teachers' planning have proposed various alternative models which seem more aptly to describe the planning practices of teachers.

Taylor concluded that curriculum planning should begin with considerations of teaching content and context (e.g., time, resources, sequencing), followed by considerations of pupil interests and attitudes, and then by considerations related to goals and evaluation.[113] Zahorik proposed an "integrated ends-means model" based on his observation that teachers focus first on learning activities because objectives arise and exist only in the context of an activity; students shape the learning experience and the objectives in the course of the activity so that prior specification of goals becomes meaningless.[114]

McCutcheon also noticed the simultaneity of teachers' considerations during planning and noted:

> Teachers' planning . . . involves a complex simultaneous juggling of a lot of information about children subject matter and contextual influences. It does not follow the rational model taught in many education courses. Rather, it accounts for far more information, follows different paths of thinking and a different order.[115]

The nonlinear quality of teachers' thinking when they are deciding what and how to teach is a common thread running through the research. Yinger observed a similarity between the processes used by teachers and the problem-solving and design processes observed in endeavors such as musical composition, chess playing, and architectural design. In all of these cases, he points out:

> . . . no problem specification is given or agreed upon, no formal language with precise solution operations is available, and the goals to be achieved and the restrictions on the problem are open to interpretation. . . . (G)oals are continually developed through a cycle involving anticipation of solutions and the results of attempts at solving subproblems.[116]

A later study by Clark and Yinger found general support for a cyclical planning process model rather than a linear one. They observed that:

> Rather than moving from well-specified and carefully stated objectives, our teachers more commonly began with a general idea and moved through the phases of successive elaboration.[117]

If teachers do not plan "rationally," that is, by specifying objectives and then matching activities and techniques to their goals, what are the results for instruction? What little research exists on the effects of planning on instruction again suggests that teachers' non-adherence to the rational model may have some important consequences for the kind of learning which occurs.

Studies of the effectiveness for student learning of using behavioral objectives are about equally divided between those which find significant facilitative effects for students' use of objectives in factual recall situations and those which do not.[118] Some of the research, though indicates that for tasks requiring higher-level reasoning ability, students' use of behavioral objectives does not generally help and may actually hinder learning.[119] While the bulk of the evidence indicates that "relevant" learning increases when behavioral objectives are presented to students, some studies also suggest that "incidental" learning--learning of information not tied to the specified objectives--

decreases when students are given specific objectives.[120]

The effects on student learning of teachers' use of objectives in planning has been little studied. Two studies, however, suggest that emphasis on objectives and subject-matter content in planning decreases teachers' responsiveness or sensitivity to student cues. Zahorik's comparison of the instructional behaviors of teachers who used behavioral objectives and detailed planning of content versus the behaviors of teachers who did not use such plans led him to conclude that use of the typical planning model decreases sensitivity to pupils on the part of the teacher. He defined sensitive behavior as "verbal acts of the teacher that permit, encourage, and develop pupils' ideas, thoughts, and actions."[121]

Peterson and Clark found that teacher flexibility--noting student cues and choosing alternative approaches while teaching--was negatively related to the number of planning statements previously written and to the emphasis on subject-matter facts reflected in the planning statements. On the other hand, flexibility was positively related to higher order (conceptually-oriented) planning and planning related to instructional processes, rather than to subject-matter. They also found that teacher flexibility was significantly and positively correlated with student scores on higher-order, abstract themes on an essay test, while "inflexibility" had the greatest positive effect on student performance on a multiple-choice test and on concrete themes on the essay test. It seemed that teachers who closely followed detailed plans oriented toward subject-matter learning enabled their students to remember facts, while teachers who focused on instructional process and who adapted their instruction to student reactions encouraged their students to acquire more abstract concepts.[122]

One hypothesis suggested by the research on the use of behavioral objectives and rational planning techniques is that teachers may find other approaches more conducive to flexibility or to encouraging critical thinking on the part of their students. Alternatively, it may be that the qualities which characterize classroom life--multidimensionality, simultaneity, and unpredictability[123]--make the use of rational planning techniques impractical or counterproductive. As McCutcheon notes, teachers' planning processes are greatly influenced by the need to adjust to interruptions, unexpected classroom events, and children's needs and interests.[124]

Jackson suggests that the major weakness of what he calls the engineering view of the teaching process is that it begins with an oversimplified image of what goes on in classrooms. The complexity of a teacher's work makes precise specification of objectives and accurate monitoring of progress almost impossible.

> . . . The problem is not just that the teacher is too busy, although that is surely part of it. It is also that he is engaged in a process that is qualitatively unlike the descriptions implied in learning theories and in what is here called the engineering view of educational progress. As typically conducted, teaching is an opportunistic process. That is to say, neither the teacher nor his students can predict with any certainty exactly what will happen next. Plans are forever going awry and unexpected opportunities for the attainment of educational goals are constantly emerging . . . Although most teachers make plans in advance, they are aware as they make them of the likelihood of change . . . They know, or come to know, that the path of educational progress more closely resembles the flight of a butterfly than the flight of a bullet.[125]

The emphases on processes (activities) and pupils in teachers' planning seem also to direct instructional decisions in the

classroom. When choosing activities, teachers report that their judgments are most influenced by concerns for student motivation and involvement and by other contextual considerations related to particular attributes of their class, classroom setting, or their personal style.[126] Teachers' conceptions of instruction also seem to be contextually determined. They report that their ideas and practices are closely linked to characteristics of their pupils and classroom settings.[127]

If the emphases or points of departure of the rational model for planning and instruction are different from those articulated by teachers, what are the results when the two approaches collide? Are the practices implied or required by rationalistic plans for management and instruction incompatible with teachers' usual practices, or can they be synthesized in some satisfactory way? Answers to these questions will depend upon knowledge of certain more specific factors: What are the points of disjuncture between teachers' views of planning and instruction and the views implicit in the rationalistic model? Are such differences fundamental or tangential to the educational process, that is, do they involve matters of form or substance concerning instructional approaches and practices? How do teachers plan, conduct and evaluate instruction when they perceive themselves to be under pressure to accommodate to rationalistic teaching? When they do not perceive themselves to be under pressure? Under what conditions do teachers feel that they must alter their behavior to adapt to accountability plans? How do they respond? What coping behaviors do they exhibit?

The degree to which teachers are willing to change their behaviors in response to felt pressures is likely influenced by their views of their roles within the school organization. Teachers' orientations

toward authority and toward school system demands for accountability and standardization are explored in the next section.

Teachers' Views of Their Roles

The rationalistic model makes important assumptions about how schools operate. It assumes that the goals of education are set politically, transmitted through the school district and school building hierarchies, and then come to rest with the teacher for implementation. The view of teachers as professionals armed with special expertise is de-emphasized in favor of a view of teachers as agents of the school bureaucracy.

> The accountability movements of the 1970s view teachers not as autonomous decisionmakers but as agents of public school policymakers, agents subject to hierarchical controls.[128]

To what extent does this view accord with reality? To what extent do the formal goals or policies of the school system guide the actions of teachers?

In the sociological literature which views schools as loosely coupled organizations, teachers are portrayed as largely autonomous professionals.[129] Studies of teachers' views and of teaching practices have tended to support the notion that "the learning activities of children and the teaching activities of teachers are marginally related to the activities of administrators."[130]

Research conducted before 1970 found that teachers actively resisted the bureaucratic rationalization of their roles. Most of the teachers interviewed by Lortie attributed greater educational benefits to teacher freedom and creativity than to board policy and efficiency moves; they

expressed a desire "to loosen organizational claims in favor of teacher decision-making in the classroom."[131] Jackson found that teachers would react with substantial hostility to such constraints on their autonomy as might be imposed by requirements to use an inflexible curriculum or by continual evaluation of their classroom conduct by their administrative superiors.[132] Corwin, reporting on a survey of teacher militancy in the midwestern states, contended that teachers wanted more control over their work, whereas administrators viewed them as "employees owing obedience."[133] More recent studies have documented teacher resistance to attempts by administrators and others outside the classroom to impose rationalistic instructional models upon their work.[134]

Many organizational theorists have pointed to the tensions which exist between the hierarchical, bureaucratic structure of school organizations and the nature of teaching work.[135] Whereas the structural characteristics of schools are typical of organizations with agreed-upon goals and technologies, teaching work incorporates diffuse goals and diverse techniques more suited to a "flat" organizational structure allowing a relatively large degree of autonomy for practitioners.[136] Wolcott found that the "flatness" of the ideal authority structure of teachers exists in marked contrast to the formal organizational structure in which they work.[137]

How do teachers resolve the organizational contradiction in which they seem to be placed? How do they respond to the activation of hierarchical controls or pressures to conform? In one view, the teacher acts as a policym ker or political broker.

> From this point of view teachers are thought to have enough discretion for their teaching to be influenced by their own beliefs of what schooling ought to be. But at the same time teachers will choose (or be constrained to choose) to follow certain pressures from without. The pressures which they follow may be consistent or inconsistent with their own ideas of what schooling ought to be . . . Teachers are likely to respond to external factors to which they attribute authority or power.[138]

Within this perspective, it is then critical to understand what kinds of authority or power teachers are likely to respond to. A study of teachers' willingness to change the content of their instruction found that, in response to hypothetical pressures, teachers reported they would be most responsive to changes dictated by the school district's stated objectives or tests. Although teachers reported a remarkable willingness to add new topics in response to *any* source of pressure (and their reported willingness increased with the number of sources of pressure), they also showed a reluctance to omit "old" topics with the addition of new ones.[139] One may infer from these findings either that teachers are malleable and hierarchically-oriented or that they believe such malleability is the socially acceptable response. Their reluctance to omit things they are used to teaching, though, may reveal a strategy of superficial acceptance and response to district mandates or other pressures so as to protect the instructional turf they care about.[140]

Others have suggested that teachers respond to organizational demands by insulating themselves within their classrooms where a different set of authority relationships and values predominate.[141] When confronted by insistent pressures to conform to a new instructional model, they generally employ passive forms of resistance described as "going through the motions" or "playing the game," without making

substantive changes in their classroom activities.[142] In general, much of the research suggests that teachers simply do not place a great deal of importance on the views or influences of the administrative hierarchy and that their ideologies remain largely unaffected by attempts to rationalize their roles.

Our examination of teachers' views of the rationalistic model will explore their feelings concerning bureaucratic control of teaching, the setting of educational goals, objectives, and standards by higher levels of authority, and the rationalization or regulation of educational content and teaching methods. Most policies aimed at improving educational quality are designed to rationalize the behavior of the teacher. To the extent that teachers still seem to resist the bureaucratic rationalization of their roles, we will attempt to uncover their reasons for resisting. Do they wish not to be held accountable, or do they find the currently proposed methods for holding them accountable to be pedagogically unsound? Do they wish to maximize their autonomy, or merely to preserve it within some agreed-upon constraints? Is it possible--but too much effort--to be subjected to rationalization, or is rationalization viewed as technically impossible? Is rationalization seen as dehumanizing? Do they think rationalization is at odds with other goals which they deem more important? What are the conditions which would make it acceptable? Is rationalization of certain aspects of schooling considered more feasible and desirable than it is of others?

To the extent that teachers seem to accept the bureaucratic rationalization of their roles more willingly than the earlier studies indicate

that they did, we will attempt to discover what influence, if any, such acceptance has had upon their statements of goals for and beliefs about education and their work. Are their stated goals more compatible with rationalistic goals for education? Have recent policies changed their approach to judging their own effectiveness? Do they perceive hierarchical controls as more legitimate and useful than earlier studies seem to indicate? Do they see rationalistic characterizations of their roles as helpful or as somewhat dysfunctional but necessary? Are there differences among types of teachers who find bureaucratic rationalization more or less acceptable? Do those whose views of schooling are compatible with the rationalistic model differ in any systematic ways in their beliefs about educational goals, processes, and practices from teachers who hold other views?

How Teachers' Attitudes Toward the Rationalistic Model are Shaped

Where do teachers develop their attitudes toward rationalism in education and toward the teaching act in general? Lortie found that teachers reported relatively little influence on their beliefs and practices as a result of their teacher education experiences. Most said that they learned how to teach from experience; many were influenced by teachers they themselves had once had in school.

> The kind of socialization sequence [experienced by teachers] leaves room for the emergence and reinforcement of idiosyncratic experience and personal synthesis. In neither structure nor content is it well suited to inculcating commonly held, empirically derived, and rigorously grounded practices and principles of pedagogy. The lessons taught by early yet persisting models rest on chance and personal preference; training in pedagogy does not seem to fundamentally alter earlier ideas about teaching. Teachers say that their principal teacher has been experience; they learned to teach

> through trial and error in the classroom. They portray the process as the acquisition of personally tested practices, not as the refinement and application of generally valid principles of instruction.[143]

In a review of research on teacher education, Peck and Tucker describe a wide range of teacher education techniques reported to affect teaching behaviors.[144] Nearly all of the studies cited used student teachers as subjects, however, and long-term effects on teachers' views or classroom behaviors were not explicitly addressed. Other investigators of classroom teaching argue that teacher training has little impact on teachers' later conceptions.[145] They cite other socializing forces--childhood experiences,[146] peer influence,[147] influence of evaluators,[148] and student response[149]--as being more important to the shaping of teachers' implicit theories and teaching behaviors.

Teacher education has been increasingly influenced by the behavioral sciences and by the rationalistic conceptions accompanying those disciplines. Prospective teachers are taught about lesson plans, behavioral objectives, educational technologies and other embodiments of the rational model of teaching. Instruction in curriculum planning and test construction has long been a part of teacher training courses. Yet the most frequently voiced criticism of Lortie's respondents about their teacher training was that the methods courses were "too theoretical." Upon close examination of the responses, Lortie concluded that

> . . . (t)oo theoretical means that the aims held out in such courses are excessively exalted, that they proffer impractical expectations and a utopian conception of classroom reality. The professors who teach such courses are said to be too remote from classroom exigencies; they proclaim goals which are unattainable and advocate behavior which is not feasible.[150]

An emerging school of thought is that teachers' conceptions are formed by the particular context in which they teach and by the more general context of teaching work. Jackson speculates that teachers' apparent lack of adherence to "rational" modes of instruction might reveal a sensible adaptation to the conditions under which teaching is conducted.

> The complexity of the teacher's work extends beyond the fact that he is concerned with a complex organism, working toward complex goals, in a complex setting. He also, in most instances, is working with a *group* of students . . . These examples of the complexity of teachers' decisions . . . are intended to illustrate an inevitable quality of the teacher's work, a quality that places severe limits on the usefulness of a highly rational model for describing what the teacher does. Given the complexity of his work, the teacher must learn to tolerate a high degree of uncertainty and ambiguity. He must be content with doing not what he *knows* is right, but what he *thinks* or *feels* is the most appropriate action in a particular situation.[151]

A study of elementary school teachers' values and beliefs about teaching also concluded that a widely-shared belief system emphasizing affective relationships, classroom boundedness, and communal norms was a reasonable response to the teaching context. "(F)or a teacher faced with the necessity of relating to 20 or 30 students every day for an entire school year, it makes sense to emphasize the development of a community within which disciplined and orderly discourse will take place. That teachers draw boundaries around the class and resist change is a necessary side effect of such a structure."[152] The teachers in this study roundly rejected the notions that achievement test scores or particular skill deficiencies should guide their efforts, or that administrators should influence classroom activities, materials, or methods.

A study of teachers' conceptions of reading instruction found that teachers explained their instructional decisions with reference to conceptions about reading and about education generally, e.g., conceptions about affective classroom relationships, student characteristics, and classroom management. In decisionmaking situations, teachers' non-reading conceptions tended to have greater impact than their conceptions of reading; overall, though, their decisions seemed to be influenced more by the teaching context than by any particular conception.[153]

Whether teachers share common conceptions of their work or whether, as Lortie suggests, their conceptions are highly individualistic and are based on idiosyncratic personal experiences, is one question we will address in the course of this study. Other questions which we will seek to answer concerning the formation of teachers' views include the following: How useful do they regard their teacher education experiences as having been? What conceptions of teaching do they retain from their teacher training? What elements of the rationalistic model of teaching were they exposed to in college and in later coursework or training? What is the relative importance of various kinds of experiences--childhood experiences, interactions with peers or administrators, classroom experiences, and teacher training experiences--in shaping teachers' views? What relationship exists between teachers' implicit theories of instruction and the particular context in which they teach?

V. CONCLUDING NOTES

Many ambitious areas of inquiry are suggested by this framework for examining teachers' conceptions of their work, of education generally, and of the rationalistic model in particular. We have recently completed detailed interviews with 45 teachers from three school districts in the mid-Atlantic area, and we will be analyzing their responses during the months to come. It is already clear that this will be a task of considerable complexity, given the richness of the data base and the elusive nature of our quest for the theories underlying the explicit responses of our interviewees.

Our analysis will seek to test and extend the findings of prior research in this area as we explore the commonalities and differences in teachers' views. What we have understood about teacher views will be compared to those policy views which characterize schools as bureaucracies, teachers as bureaucrats, students as objects, and education as purely instrumental. One outcome of our efforts--if the data behave themselves and our minds stretch far enough to encompass them--may be the explication of an alternative conceptual framework which characterizes the educational endeavor from the perspective of teachers. The best outcome would be the discovery of concepts of schooling, teaching, and learning which are perceived as relevant by teachers and which could guide the development of governmental policies directed at the activities of teachers.

ENDNOTES

[1]C. C. Peters, *Foundations of Educational Sociology* (New York: MacMillan, 1932).

[2]Horace Mann, *The Twelfth Annual Report of the Board of Education*, in *Life and Works*, Vol. 4 (Boston, 1891).

[3]Brown v. Board of Education of Topeka, 347 U.S. 483, 492-493 (1954).

[4]See for example, Hobson v. Hansen, 269 F. Supp. 401 (D.D.C. 1967); Keyes v. School District No. 1, Denver Colorado, 313 F. Supp. 61 (1970); Swann v. Charlotte - Mecklenburg Board of Education, 402 U.S. 1 (1971); Serna v. Portales Municipal School, 351 F. Supp. 1279 (D.N. Mexico 1972).

[5]Hobson v. Hansen, *supra* note 4; Milliken v. Bradley, 414 U.S. (1974); Morgan v. Hennigan, 379 F. Supp. 410 (D. Mass. 1974).

[6]This approach to school finance reform is not entirely new. An early case in Pennsylvania school law, for example, interpreted the state's constitutional mandate for the provision and funding of education as intending to improve school outcomes. In School District of Beallsville, 21 C.C. 642 (1897), the court stated:

> At the time of the adoption of the Constitution of 1874 the whole school system had then been in operation forty years; yet statistics demonstrated that a large percentage of even Pennsylvania-born children, grown to manhood and womanhood under the public school system, were illiterate. The school law, as administered, had not accomplished nearly to the full extent the purposes of its founders. Hence the mandate of the new Constitution. The implication is that the fund raised by local taxation has not been sufficient. It must be liberally supplemented by state aid.

[7]411 U.S. 1, 35-37.

[8]Alan Lubel, "Unequal Financing of Public Schools through the Use of Local Property Taxes is not a Violation of the Equal Protection Clause of the Fourteenth Amendment," *Emory Law Journal* 23 (Winter 1974), p. 234.

[9]The Constitution guarantees "a thorough and efficient system of free public schools for the instruction of all the children in the state between the ages of 5 and 18 years," N.J. Const. Article VIII, Sec. 4, #1.

[10]303 A. 2d 273, 295 (1973).

[11]303 A. 2d 273, 297.

[12]Donald L. Horowitz, *The Courts and Social Policy* (Washington, D.C.: The Brookings Institution, 1977), p. 6.

[13]Ibid., p. 7.

[14]Mills v. Board of Education, 348 F. Supp. 866 (D.D.C. 1972).

[15]Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania, 343 F. Supp. 279 (D.E. Pa. 1972), *modifying* 334 F. Supp. 1257 (1971).

[16]414 U.S. 563 (1974).

[17]Hobson v. Hansen, *supra* note 4; Larry P. v. Riles, 343 F. Supp. 1306 (N.D. Cal. 1972) *aff'd*, 502 F. 2d 963 (9th Cir. 1974).

[18]Robert E. Lindquist and Arthur E. Wise, "Developments in Education Litigation: Equal Protection," *Journal of Law and Education* 5, No. 1 (January 1976), p. 49.

[19]Educational malpractice challenges which have come before the courts to date have been dismissed. See, for example, Peter Doe v. San Francisco Unified School District, 131 Cal. Rptr. 854 (1972); Donohue v. Copiague Union Free School District, 408 N.Y.S. 2d 584 (Sup. Ct. 1977), *aff'd*, 407 N.Y.S. 2d 874 (1977); John Doe v. Board of Education of Montgomery County, 48 U.S.L.W. 2077 (1979).

[20]Patton v. Dumpson, 48 U.S.L.W. 2523 (USDC, S.N.Y. January 23, 1980).

[21]Martin Luther King Junior Elementary School Children v. Ann Arbor School District Board, 48 U.S.L.W. 2058 (July 12, 1979).

[22]*Education U.S.A.*, July 23, 1979, p. 347.

[23]Horowitz, p. 3.

[24]Civil Rights Act of 1964, Sec. 402.

[25]James S. Coleman, et al., *Equality of Educational Opportunity* (Washington, D.C.: U.S. Government Printing Office, 1966).

[26]James S. Coleman, "The Evaluation of *Equality of Educational Opportunity*," in Frederick Mosteller and Daniel P. Moynihan (eds), *On Equality of Educational Opportunity* (New York: Random House, 1972), pp. 149-150.

[27]P.L. 89-10, Title I, Sec. 101.

[28]P.L. 93-380, Sec. 821.

[29]National Institute of Education, *The Compensatory Education Study: Executive Summary* (Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1978), p. 11.

[30]P.L. 94-142, Sec. 3 (emphasis added).

[31]P.L. 94-142, Sec. 615.

[32]*Education Daily*, July 25, 1979, p. 2.

[33]Armstrong v. Kline, 48 U.S.L.W. 2040 (USDC, E. Pa.).

[34]Missouri Education Commissioner, Arthur Malloy, quoted in *Education Daily*, July 25, 1979, p. 2.

[35]Robinson v. Cahill, *supra* note 10; Seattle School District No. 1 of King County v. State, 585 P. 2d 71 (Wash. 1978); Pauley v. Kelly, W.Va. Sup. Ct., Feb. 13, 1979.

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[37]Cooperative Accountability Project, *Legislation by the States: Accountability and Assessment in Education*, Report No. 2, Bulletin No. 6210 (December 1975), p. 3.

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[40]Lewis, p. 147.

[41]Ibid., p. 150.

[42]131 Cal. Rptr. 854, 860-861.

[43]Lewis, p. 182.

[44]Horowitz, p. 32.

[45]Arthur E. Wise, *Legislated Learning: The Bureaucratization of the American Classroom* (Berkeley: University of California Press, 1979), p. 52.

[46]Horowitz, p. 51.

[47]Ibid., pp. 33-56.

[48]Ronald G. Corwin, "Models of Educational Organizations," *Review of Research in Education* 2 (1975), pp. 252-253.

[49]Ibid. See also, Karl E. Weick, "Educational Organizations as Loosely Coupled Systems," *Administrative Science Quarterly* 21 (March 1976), pp. 1-19; John M. Stephens, *The Process of Schooling* (New York: Holt, Rinehart, and Winston, 1976).

[50]Max Weber, *From Max Weber: Essays in Sociology*, trans. and ed., H. H. Gerth and C. Wright Mills (New York: Oxford University Press, 1946), p. 220.

[51]Michael B. Katz, *Class, Bureaucracy and Schools* (New York: Praeger, 1975), p. 108.

[52]We speak of educational policymakers monolithically, although we recognize that they may hold diverse personal views of education. Our concern, however, is with the views implicit in the policies which they enact. The exigencies of the policymaking process, together with the limited technology for implementing policies, cause them to adopt rationalistic approaches.

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[54]Dan C. Lortie, *Schoolteacher: A Sociological Study* (Chicago: The University of Chicago Press, 1975), pp. 216-217.

[55]Charles E. Bidwell, "The School as a Formal Organization," in James G. March (ed.), *Handbook of Organizations* (Chicago: Rand McNally, 1965), p. 974.

[56]Stephens, p. 9.

[57]Ibid., pp. 9-11.

[58]Ibid., p. 58.

[59]Ibid., pp. 68-69.

[60]Ibid., pp. 13-14.

[61]Ibid., p. 12.

[62]Corwin, pp. 255-256.

[63]Stephens, pp. 12-13.

[64]Corwin, p. 260.

[65]Ibid., p. 262.

[66]Rachel Sharp and Anthony Green, *Education and Social Control: A Study in Progressive Primary Education* (London: Routledge and Kegan Paul, 1975), pp. 40-41.

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[70]Mary Anne Raywid, "Models of the Teaching-Learning Situation," *Phi Delta Kappan* (April 1977), pp. 631-635.

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[72]Corwin, p. 270.

[73]We are indebted to Professor Lee S. Shulman for helping us to clarify these distinctions.

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[79]Jackson, p. 123.

[80]Lortie, p. 127.

[81]Ibid., p. 135.

[82]Ibid., p. 136.

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[86]Jackson, pp. 136-141; Lortie, pp. 127-128.

[87]Harry F. Wolcott, *Teachers vs. Technocrats* (Eugene, Oregon: University of Oregon Center for Educational Policy and Management, 1977), p. 160.

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[93]Lortie, pp. 169-170, 185; Jackson, p. 150.

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